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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,290	12/28/2001	Kazunori Yoshino	8350.0663-00	3082

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Finnegan, Henderson, Farabow,  
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1300 I Street, N.W.  
Washington, DC 20005-3315

EXAMINER

LOPEZ, FRANK D

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 04/06/2004

*9*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/029,290

Applicant(s)

YOSHINO, KAZUNORI

Examiner

F. Daniel Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4, 5, 7, 9, 10, 14-16 and 21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 4, 5, 7, 9, 10, 14-16 and 21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

Applicant's arguments filed February 6, 2004, have been fully considered but they are not deemed to be persuasive.

Applicant's arguments with respect to claims 1, 4, 5, 7, 9, 10, 14-16 and 21 have been considered but are deemed to be moot in view of the new grounds of rejection. The new grounds of rejection are necessitated by the added limitations that combine the limitations of claims 2 and 3, which were not previously combined.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

Claims 1, 4, 15 and 16 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Norick and Yoshimatsu (5,062,266). Yoshimatsu (5,063,742) discloses a fluid control system and method of operating comprising a pressurized fluid source (1a) supplying pressurized fluid through respective ones of a plurality of spool type flow control valves (81, 82, 83, 2), to a plurality of double acting cylinders (see e.g. column 9 line 39-43) and a plurality of fluid driven motors (e.g. 3); a back pressure element (14) associated with a motor return line (13) providing fluid communication between the motor and a tank (15) and with a cylinder return line providing fluid communication between the cylinder and the tank, and influencing a fluid back pressure on fluid discharged from the motor and cylinder; a dedicated flow line configured to provide make up fluid to the motor at a location between the motor and the back pressure element; wherein the fluid source provides fluid across a main relief valve (12, e.g. fig 1) in a first flow line, to the motor return line and dedicated flow line, hereby providing makeup fluid to the motor; but does not disclose that a pilot pump provides fluid across a pilot relief valve disposed in a second flow line, to the motor return flow line flow line; or that the main relief valve is a combination main relief and bypass valve.

Norick teaches, for a fluid control system and method of operating comprising a pressurized fluid source (14) supplying pressurized fluid to a fluid driven motor (12); a back pressure element (40) disposed in a motor return line (21), between the motor and a tank (36), and influencing a fluid back pressure on fluid discharged from the motor; that a pilot pump (35) provides fluid across a pilot relief valve (54) and to the motor return line, the purpose of the pilot pump being to control displacement of the pressure source, thereby increasing efficiency, with the purpose of the pilot relief valve to protect against over-pressurization of the system (e.g. column 4 line 11-13).

Since Yoshimatsu (5,063,742) and Norick are both from the same field of endeavor, the purpose disclosed by Norick would have been recognized in the pertinent art of Yoshimatsu (5,063,742). It would have been obvious at the time the invention was made to one having ordinary skill in the art to include a pilot pump to provide fluid across a pilot relief valve and to the motor return line of Yoshimatsu (5,063,742), as taught by Norick, the purpose of the pilot pump being to control displacement of the pressure source, thereby increasing efficiency, with the purpose of the pilot relief valve to protect against overpressurization of the system.

Yoshimatsu (5,062,266) teaches, for a fluid control system and method of operating comprising a pressurized fluid source (1) supplying pressurized fluid to a fluid driven motor (6); a back pressure element (72) disposed between the motor and a tank (7), and influencing a fluid back pressure on fluid discharged from the motor; a dedicated flow line configured to provide make up fluid to the motor at a location between the motor and the back pressure element; wherein the fluid source provides fluid across a main relief valve (17) to the dedicated flow line; that the main relief valve is a combination main relief and bypass valve (17, in combination with 18), for the purpose of unloading the pressure source, when not needed to provide pressurized fluid (e.g. column 4 line 2-8).

Since Yoshimatsu (5,063,742) and Yoshimatsu (5,062,266) are both from the same field of endeavor, the purpose disclosed by Yoshimatsu (5,062,266) would have been recognized in the pertinent art of Yoshimatsu (5,063,742). It would have been obvious at the time the invention was made to one having ordinary skill in the art to

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make the main relief valve of Yoshimatsu (5,063,742), or the modified Yoshimatsu (5,063,742) a combination main relief and bypass valve, as taught by Yoshimatsu (5,062,266), for the purpose of unloading the pressure source, when not needed to provide pressurized fluid.

Claims 5, 7, 9, 10, 14; and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Norick and Yoshimatsu (5,062,266), as applied to claim 4 and 15, respectively, above, and further in view of Chung. the modified Yoshimatsu (5,063,742) discloses all of the elements of claims 5, 7, 9, 10, 14, and 21; but does not disclose that the cylinder return line does not pass across the back pressure element.

Chung teaches, for a fluid control system and method of operating comprising a pressurized fluid source (P) supplying pressurized fluid to a fluid driven motor (1) and a double acting cylinder (connected to A, B and/or C, e.g. column 1 line 28-34); a back pressure element (3) disposed between the motor and a tank (T), and influencing a fluid back pressure on fluid discharged from the motor; a dedicated flow line (4) configured to provide make up fluid to the motor at a location between the motor and the back pressure element; and a cylinder return line connected between the cylinder and tank; disclose that the cylinder return line does not pass across the back pressure element, for the purpose of preventing undesired pressure loss for the cylinders (e.g. column 2 line 2-4).

Since Yoshimatsu (5,063,742) and Chung are both from the same field of endeavor, the purpose disclosed by Chung would have been recognized in the pertinent art of Yoshimatsu (5,063,742). It would have been obvious at the time the invention was made to one having ordinary skill in the art to make the cylinder return line of Yoshimatsu (5,063,742) not pass across the back pressure element, or the modified Yoshimatsu (5,063,742), as taught by Chung, for the purpose of preventing undesired pressure loss for the cylinders.

Claims 12 and 13 are rejected under 35 U.S.C. § 103 as being unpatentable over Yoshimatsu (5,063,742) in view of Norick, Yoshimatsu (5,062,266) and Chung, as applied to claim 10, above, and further in view of Krusche. The modified Yoshimatsu (5,063,742) discloses all of the elements of claims 12 and 13; but does not disclose that each of the plurality of flow control valves include a pair of meter-in valves and a pair of meter-out valves.

Krusche teaches, for a fluid control system comprising a pressurized fluid source (1) supplying pressurized fluid to a fluid driven motor (e.g. 108, 109) through a flow control valve; the equivalence of a spool type flow control valve (128, fig 10) and a flow control valve including include a pair of meter-in valves (118, 119, fig 9) and a pair of meter-out valves (unnumbered, fig 9).

Since the flow control valves of Yoshimatsu (5,063,742) are spool type, and Krusche teaches the equivalence of spool type flow control valves and flow control valves including a pair of meter-in valves and a pair of meter-out valves; it would have been obvious at the time the invention was made to one having ordinary skill in the art to replace the spool type flow control valves of the modified Yoshimatsu (5,063,742) with flow control valves which include a pair of meter-in valves and a pair of meter-out valves, as taught by Krusche, as a matter of engineering expediency.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

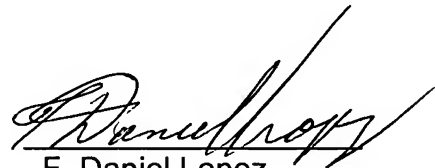
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is (703) 308-0008. The examiner can normally be reached on Monday-Thursday from 6:30 AM -4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on (703) 308-1044. The fax number for this group is (703) 308-7763. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.

A handwritten signature in black ink, appearing to read 'F. Daniel Lopez', with a long, sweeping horizontal stroke extending to the right.

F. Daniel Lopez  
Primary Examiner  
Art Unit 3745  
April 06, 2004